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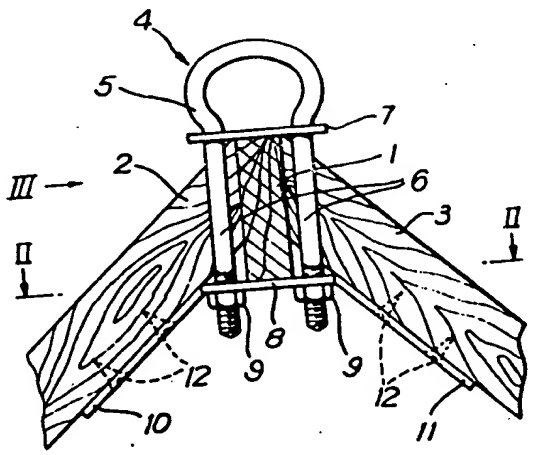
(54) Anchorage clamp

(57) A safety anchorage for a safety harness and which can be quickly and easily fitted to the ridge board, of a roof consists of an eye formation 5 to receive the harness hook, and clamping means on the eye formation including a top face 7 to engage the top face of the ridge board, tie rods 6 extending from the top face to lie at the sides of the ridge board, and a bottom plate 8 adjustably mounted on the tie rods for upward movement into clamping engagement with the under face of the ridge board. Advantageously, the bottom plate includes a pair of laterally extending wing portions 10, 11 which are angled to lie closely adjacent to the under faces of the upper end portions of a pair of opposed rafters of the ridge.

Fig.1.



The drawings originally filed were informal and the print here reproduced is taken from a later filed formal copy.

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Fig.1.

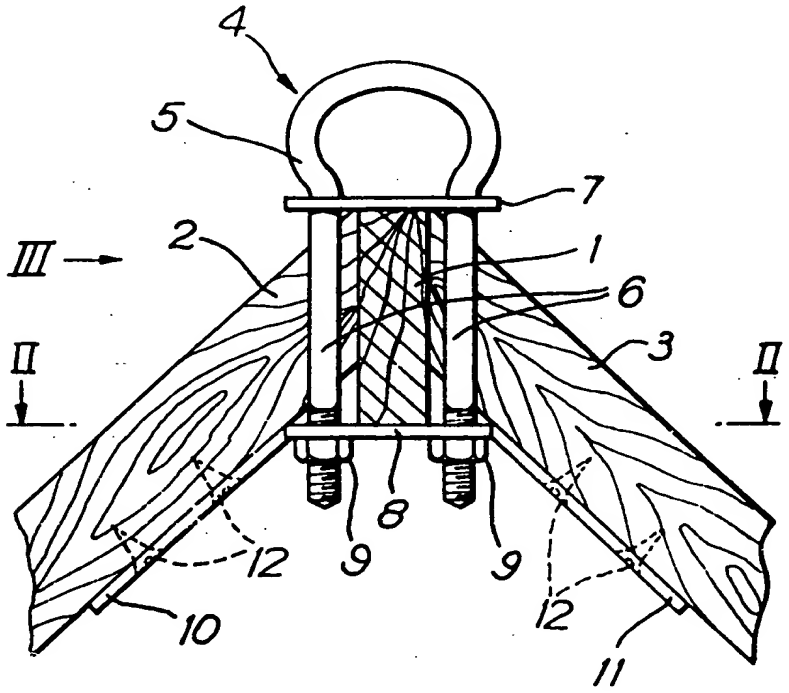


Fig.2.

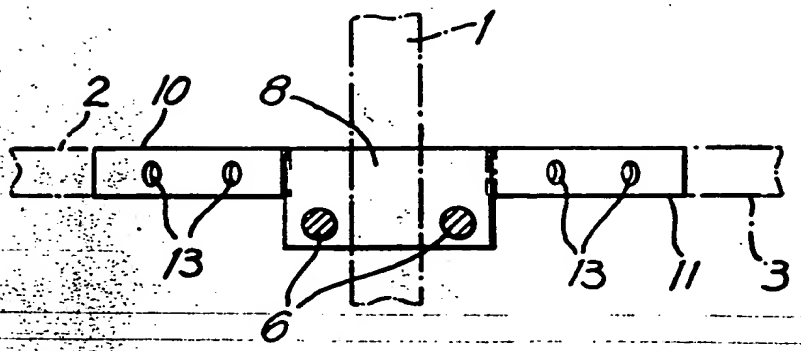


Fig.3.

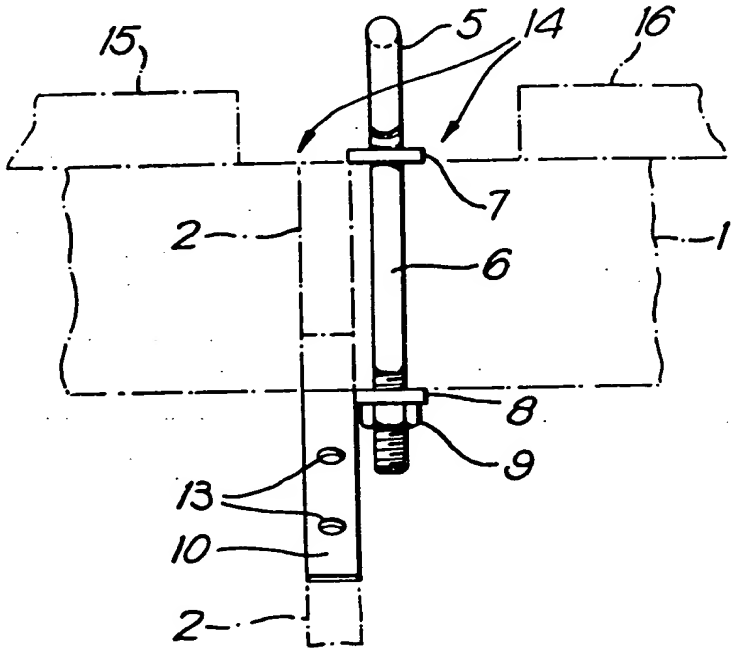


Fig.4.

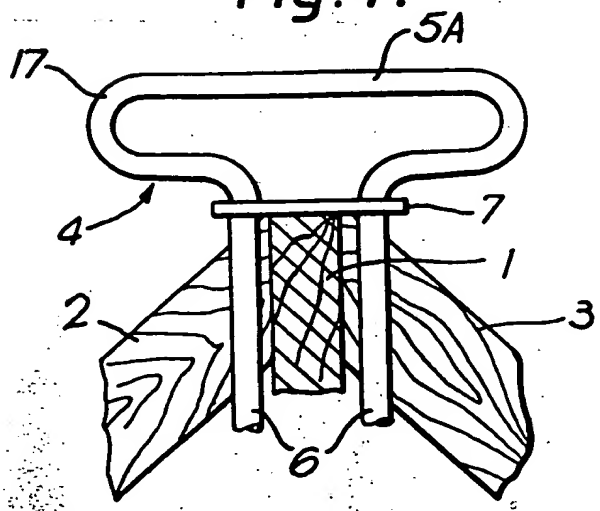
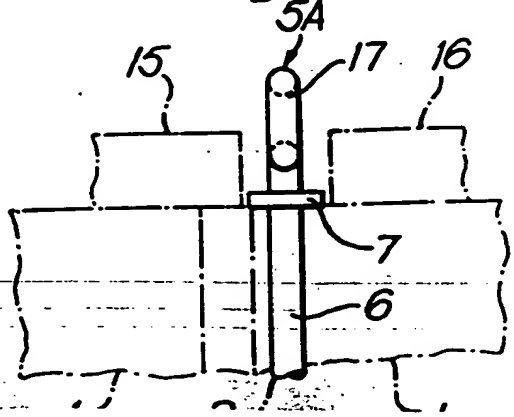


Fig.5.



SPECIFICATION

Safety anchorage device for the roof of a ridge-roofed building

This invention relates to a safety anchorage device for the roof of a ridge-roofed building, and is more particularly concerned with the provision of an anchorage device on a roof ridge which includes a longitudinal batten and upper end portions of a pair of opposed rafters diverging laterally downwards from the batten.

An object of the invention is to provide on the roof ridge a simple, easily fitted, and secure anchorage device to which a workman on the roof can attach a support such for example as a rope or ropes of safety harness worn by him.

According to the present invention there is provided an anchorage device for secural to the roof of a ridge-roofed building, comprising a first piece for engagement with a top face of the roof ridge, attachment means extending from the first piece for engagement by support means for a workman, a pair of laterally spaced tie rods extending from the first piece for location respectively at opposite sides of the ridge batten, and a second piece adjustably mounted on the tie rods for upward movement towards an under face of the roof ridge so that the first and second pieces co-operate to secure the attachment means to the roof ridge.

Preferably, the first piece has an under face to abut the top face of the batten of the roof ridge, and the second piece has a top face to abut the under face of said batten.

Preferably also, the second piece includes a pair of lateral extensions having top faces to abut respectively the under faces of adjacent end portions of a pair of opposed rafters of the roof ridge.

Embodiments of the invention will now be described, by way of example, with reference to the accompanying diagrammatic drawings, in which:—

Fig. 1 is a cross-sectional end view of one form of anchorage device mounted on a roof ridge.

Fig. 2 is a sectional plan view on the line II—II in Fig. 1.

Fig. 3 is a side view in the direction of the arrow III in Fig. 1.

Figs. 4 and 5 are fragmentary side and end views of another form of anchorage device.

Referring to Figs. 1 to 3, an anchorage device is mounted on a roof ridge composed of a longitudinal batten (or pole) 1 and pairs of opposed rafters 2 and 3 diverging laterally and downwards from the batten 1. The device includes a member 4 composed of a gapped ring 5 and a pair of screw-threaded tie rods or shanks 6 extending downwards from the ends of the ring and disposed at opposite sides of the batten 1. The shanks 6 pass through holes in a top clamping plate 7, which is preferably welded or otherwise secured to the shanks 4, to close the gap in the ring 5. The plate 7 rests on the top face of the ridge batten 1 of the roof ridge, and the shanks 6 project downwards on opposite sides of the batten 1 through holes in the sarking (not shown) of the roof ridge, and terminate below the pair of opposed rafters 2 and 3. The threaded shanks 6 project through openings in a bottom clamping plate 8 engaged by nuts 9 on the shanks 6. The plate 8 extends in the longitudinal direction under the adjacent pair of rafters 2, 3, and a pair of lateral extensions or wings 10 and 11 integral with the plate 8 are angled to lie closely adjacent to the under faces of the pair of rafters 2, 3. The nuts 9 on the shanks 6 are tightened until the clamping plate 8 firmly abuts the under face of the batten 6 and the extensions 10 and 11 abut the under faces of the rafters 1, 2. Thereafter, the extensions 10 and 11 are secured to the rafters 1, 2 by screws 12 passing through holes 13 in the extensions. If the angle of the extensions 10 and 11 does not correspond exactly to the slope of the rafters 2 and 3, the arrangement is such that the extensions become correctly angled under the pressure applied by the nuts 9.

During the building of a ridge roof, a gap 14 (Fig. 3) is left between two adjacent ridge tiles 15 and 16 to permit fitment of the anchorage device and to leave sufficient room for the engagement of the hook of a rope of safety harness with the ring 5. In an already erected ridge roof, two ridge tiles are removed and shortened and replaced, to provide the required space.

In the form shown in Figs. 4 and 5, the anchorage is similar to that shown in Figs. 1 to 3 except that the top portion of the member 4, instead of being a gapped ring is a laterally elongate or flattened gapped loop 5A which is long enough to project at opposite sides clear of the ridge tiles 15 and 16 which can approach closely to the portion 5A, so that a pair of eyes 17 and 18 are provided respectively at opposite sides of said ridge tiles. In this embodiment, less space between the ridge tiles is required than in the embodiment of Figs. 1 to 3. In Figs. 4 and 5 parts corresponding to those in Figs. 1 to 3 are indicated by the same numerals.

Various modifications may be made without departing from the scope of the invention. For example, the member 4 (Fig. 1) need not be formed of a single piece of rod. Thus, the gapped ring 5 or the gapped loop 5A may be formed separately from the shanks 6, and then welded, together with the shanks 6, to opposite sides of the plate 7.

The anchorage device can be used in a generally similar manner on a slated roof.

With reference to the bottom clamping plate 8, it is to be understood that the wings 10 and 11 thereon can be bent to the required angle by the workman, should this be necessary, instead of relying on the pressure of the nuts 9. Also, it is possible that the wings 10 and could be hinged to the plate 8.

It is to be understood that after fitment of each anchorage device the space between the ridge tiles is sealed to prevent leakage.

CLAIMS

1. An anchorage device for secural to the roof of a ridge-roofed building, comprising a first piece for engagement with a top face of the roof ridge, attachment means extending from the first piece for engagement by support means for a workman, a pair of laterally spaced tie rods extending from the first piece for location respectively at opposite sides of the ridge batten and a second piece adjustably mounted on the tie rods for upward movement towards an under face of the roof ridge so that the first and second pieces co-operate to secure the attachment means to the roof ridge.

2. A device according to claim 1, wherein the first piece has an under face to abut the top face of the batten of the roof ridge, and the second piece has a top face to abut the under face of said batten.

3. A device according to claim 2, wherein the second piece includes a pair of lateral extensions having top faces to abut respectively the under faces of adjacent end portions of a pair of opposed rafters of the roof ridge.

4. A device according to claim 3, wherein the second piece is a plate, and the tie rods consists of screw-threaded shanks extending through openings in the plate, and nuts on the shanks are engageable with the plate to secure the plate against said batten.

5. A device according to claim 4, wherein the lateral extensions of the plate are apertured to enable fixing thereof to the rafters by screws.

6. A device according to any one of claims 1 to 5, wherein the first piece is a plate and the attachment means consist of a gapped ring whereof the gap is closed by the plate.

7. A device according to claim 6, wherein the gapped ring and the tie rods form a single member whereof the rods extend through openings in the plate forming the first piece.

8. A device according to claim 7, wherein the plate forming the first piece is secured to the tie rods.

9. A device according to any one of claims 6 to 8, wherein the gapped ring is laterally elongate to provide at its ends a pair of laterally spaced eyes for engagement by the support means for the workman.

10. An anchorage device for secural to the roof of a ridge-roofed building, substantially as hereinbefore described with reference to Figs. 1 to 3 and Figs. 4 and 5 of the accompanying drawings.

New claims or amendments to claims filed on 15 May 1981

Superseded claims 1—10

New or amended claims:— 1—7

1. An anchorage device for secural to the roof of a ridge-roofed building, comprising a first plate for engagement with a top face of the roof ridge, a gapped ring extending from and closed by the first plate for engagement by support means for a workman, a pair of laterally spaced tie rods forming with the gapped ring a single member and extending from and through openings in the first plate for location respectively at opposite sides of the ridge batten and a second plate adjustably mounted on the tie rods for upward movement towards an underface of the roof ridge so that the first and second plates co-operate to secure the attachment means to the roof ridge.

2. A device according to claim 1, wherein the tie rods consist of screw-threaded shanks extending through openings in the second plate, and nuts on the shanks are engageable with the second plate to secure the second plate against the batten.

3. A device according to claim 1 or 2, wherein the gapped ring is laterally elongate to provide at its ends a pair of laterally spaced eyes for engagement by the support means for a workman.

4. A device according to claims 1, 2 or 3, wherein the second plate includes a pair of lateral extensions having top faces to abut respectively the under faces of adjacent end portions of a pair of opposed rafters of the roof ridge.

5. A device according to claim 4, wherein the lateral extensions of the second plate are apertured to enable fixing thereof to the rafters by screws.

6. An anchorage device for secural to the roof of a ridge-roofed building, substantially as hereinbefore described with reference to Figs. 1 to 3 of the accompanying drawings.

7. A device according to claim 6 but modified substantially as hereinbefore described with reference to Figs. 4 and 5 of the accompanying drawings.

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